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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,310	06/21/2000	Carlton Sparrell	FAN-00-010	1600

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Luce, Forward, Hamilton & Scripps LLP
11988 El Camino Real
Suite 200
San Diego, CA 92130

EXAMINER	
TRAN, THIEN D	

ART UNIT	PAPER NUMBER
2665	12

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/603,310	Applicant(s) SPARRELL ET AL.	
	Examiner Thien D Tran	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (U.S Patent No. 5,889,767) in the view of Wolfe et al (U.S Patent No. 4,763,325).

Regarding claims 1, 5, Kimura discloses a network communication system, comprising:

a first device having a first data bandwidth requirement, said first device configured to transmit and receive data, figure 2;

a second device having a second data bandwidth requirement, said second device configured to transmit and receive data at different data rates and configured to communicate with said first device, figure 2; and

a master transceiver configured to manage data communications between said first device and said second device, col.5 lines 15-45.

Kimura does not disclose that devices having different data rates using variable length of time slots. However, Wolfe discloses that slot of variable length associated with different calls of devices, col.5 lines 55-65. Therefore, it would have been obvious

to one having ordinary skill in the art to have the variable length slot implemented into the system of Kimura so that the efficiency of bandwidth utilization can be achieved.

Regarding claims 2, 8, Kimura discloses that communication between said first device and said second device is configured to perform in a wireless environment. See figure 2.

Regarding claims 3, 9, Kimura does not disclose that the variation of ultra band frequency is as a function of signal to noise ratio or bit error rate. However, it would have been obvious to one having ordinary skill in the art to have frequency associated with the data rate due to the factor of signal to noise or bit error rate so that the system can properly calculate the correct data bits associated with the transmission.

Regarding claim 6, Kimura discloses that master transceiver is further configured to synchronize communications between said first slave transceiver and said second slave transceiver. See col.1 lines 1-4.

Regarding claim 7, Kimura discloses that a third transceiver in communications with said master transceiver, said third transceiver configured to communicate a plurality of TDMA data packets at different data rates. See col.10 lines 35-45.

3. Claims 4, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (U.S Patent No. 5,889,767) in the view of Wolfe et al (U.S Patent No. 4,763,325) and in further view of Panasik (U.S Patent No. 6,668,008).

Regarding claims 4, 10, Kimura discloses master transceiver configured to transmit band pulses, comprising:

at least one slave transceiver in communication with the master transceiver; and

a framing control unit housed by said master transceiver, said framing control unit configured to generate and maintain a plurality of TDMA frames, each of said plurality of TDMA frames having a plurality of slots, each of said plurality of slots having a Comm bytes (start of frame slot), said start of frame slot configured to identify each of said plurality of TDMA frames to said at least one slave transceiver, figure 4, col.7 lines 1-5.

Kimura does not disclose that the base band signal is an ultra wide band. However, Panasik discloses UWB used for the communication system, col.3 line 5. Therefore, it would have been obvious to one having ordinary skill in the art to have the ultra wide band used as a communication frequency base band to have higher data rate in communication system.

4. Claims 11-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (U.S Patent No. 5,889,767) in the view of Panasik (U.S Patent No. 6,668,008).

Regarding claims 11, 17, 23, 28, 32, Kimura discloses a transceiver, comprising:

a data modulation unit configured to generate a plurality of signals having different speed modulations (variable pulse repetition frequencies) and different modulation techniques, col.5 lines 50-60;

a transmitter coupled to said data modulation unit, said transmitter configured to generate a pulse stream according to said data modulation unit, col.5 lines 20-25;

an antenna coupled to said transmitter, said antenna configured to transmit a plurality of baseband signals, figure 2; and

a receiver configured to detect and demodulate said band base band signals, col.8 lines 1-10.

Kimura does not disclose that the base band signal is an ultra wide band. However, Panasik discloses UWB used for the communication system, col.3 line 5. Therefore, it would have been obvious to one having ordinary skill in the art to have the ultra wide band used as a communication frequency base band to have higher data rate in communication system.

Regarding claims 29, 34, Kimura discloses that communication between said first device and said second device is configured to perform in a wireless environment. See figure 2.

Regarding claim 33, Kimura discloses that master transceiver is further configured to synchronize communications between said first slave transceiver and said second slave transceiver. See col.1 lines 1-4.

Regarding claim 20, Kimura discloses that a third transceiver in communications with said master transceiver, said third transceiver configured to communicate a plurality of TDMA data packets at different data rates. See col.10 lines 35-45.

Regarding claim 12, Kimura discloses that a in communication with said framing control unit (MAC), said Medium Access Control protocol configured to define each of said plurality of TDMA frames. See col.5 lines 25-35.

Regarding claims 13, 14 Kimura discloses that communications between said master transceiver and said at least one slave transceiver is configured to provide for data communications (isochroous and asynchronous). See figures 4.

Regarding claim 15, Kimura discloses that start of frame slot generated by said master transceiver further comprises a synchronization slot configured to synchronize communications between said master transceiver and said at least one slave transceiver. See col.6 line 45.

Regarding claim 16, Kimura discloses start of frame slot generated by said master transceiver further comprises a timestamp slot which is configured to permit said master transceiver to modify each of said plurality of TDMA frames at a predetermined time interval. See col.11 line 52.

Regarding claims 18, 19, 21, 22, Kimura discloses that said data modulation unit comprises a pulse repetition frequency module configured to permit varying pulse repetition frequencies to be transmitted. See col.8 lines 1-10.

Regarding claims 24, 25, Kimura discloses that receiver further comprises a data processing unit coupled to said pulse detection unit, said data processing unit configured to retrieve a plurality of data from said plurality of pulse detection pulses. See col.5 lines 50-65.

Regarding claims 26, 27 Kimura discloses that the transceiver having housing circuit for decoding and dividing data frames, col.9 lines 45-55.

Regarding claim 30, 31, 35, 36 Kimura does not disclose that the variation of ultra band frequency is as a function of signal to noise ratio or bit error rate. However, it

would have been obvious to one having ordinary skill in the art to have frequency associated with the data rate due to the factor of signal to noise or bit error rate so that the system can properly calculate the correct data bits associated with the transmission.

Conclusion

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (703) 308-4388. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thien Tran

STEVEN NGUYEN
PRIMARY EXAMINER